

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2004/001483

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: A61M 1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI IPC A61M/- A61F/- A61B/- + keywords: (aort, heart, arter, balloon, inflat, assist, pump, pulsat, rhythm, attach, glue, suture, staple, clip, adhere)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2002/024254 A2 (IMPERIAL COLLEGE INNOVATIONS LIMITED) 28 March 2002 Pages 1-36	1-11, 15-22
X	WO 2002/024255 A1 (SUNSHINE HEART COMPANY PTY LTD) 28 March 2002 Pages 1-15	1-5, 15
X	WO 2000/076288 A2 (SUNSHINE HEART COMPANY PTY LTD) 21 December 2000 Pages 1-16	1-5, 7, 11, 15
A	Patent Abstracts of Japan, JP 10-328297 (BUAAYU:KK) 15 December 1998	

☐ Further documents are listed in the continuation of Box C

☒ See patent family annex

* "A"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search
22 November 2004

Date of mailing of the international search report

26 NOV 2004

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report			Patent Family Member			
JP	10328297	NIL				
WO	2000076288	AU	50548/00	BR	0011464	CA 2375962
		EP	1185319	US	2004167376	
WO	200224255	AU	91488/01	EP	1318848	US 2004073080
WO	200224254	AU	90088/01	BR	0114087	CA 2421812
		EP	1379294	US	2003233023	

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX

PATENT COOPERATION TREATY

REC'D 08 DEC 2004

WIPO PCT

From the:
INTERNATIONAL SEARCHING AUTHORITY

To:

SPRUSON & FERGUSON
GPO Box 3898
SYDNEY NSW 2001

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)	26 NOV 2004
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Applicant's or agent's file reference
644616c

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/AU2004/001483

International filing date (day/month/year)
28 October 2004

Priority date (day/month/year)
30 October 2003

International Patent Classification (IPC) or both national classification and IPC
Int. Cl. ⁷ A61M 1/12

Applicant
SUNSHINE HEART COMPANY PTY LTD et al

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2004/001483

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

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PCT/AU2004/001483

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 8, 12-14, 17-22	YES
	Claims 1-7, 9-11, 15, 16	NO
Inventive step (IS)	Claims 12-14	YES
	Claims 1-11, 15-22	NO
Industrial applicability (IA)	Claims 1-22	YES
	Claims	NO

2. Citations and explanations:

D1 WO 2002024254

D2 WO 2002024255

D3 WO 2000076288

NOVELTY (N) Claims 1-7, 9-11, 15, 16

Claims 1-5, 15: The features defined in each of these claims are provided in each of the citations D1, D2, D3. For example the features of claim 1 are provided in D1 as follows:

Directly attaching a heart assist device to the exterior of an arterial vessel

Pages 14-21

Heart assist device includes inflatable balloon or chamber

Figure 1

Similarly for the other listed claims and citations.

Claims 7, 11: The features of each of these claims are provided by each of citations D1 and D3, similarly to the above.

Claims 6, 9, 10, 16: The features of each of these claims are provided by D1, similarly to the above.

INVENTIVE STEP (IS) Claims 1-11, 15-22

Claims 1-7, 9-11, 15, 16: Since these claims lack novelty, they also lack inventive step.

Claims 8, 17-22: Since the features added by these claims, methods of attachment, are well known in the art they cannot provide inventive step for the application.